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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,062	10/15/2003	Yasushi Usagawa	KOY-9	6996

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EXAMINER

CHEA, THORL

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,062

Applicant(s)

USAGAWA ET AL.

Examiner

Thorl Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 18-36 is/are allowed.
6) ☒ Claim(s) 1-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Yoshioka et al (US Patent No. 6,413,712) and Murray et al (US Patent No. 5,686,228).

Yoshioka et al disclose a photothermographic material substantially as claimed. See the material in the abstract which discloses a photothermographic material having photosensitive silver halide, non-photosensitive organic silver salt, a reducing agent comprises a at least one species of 0-polyphenol compound and at least one species of hindered phenol compound.; examples in columns 38-46 wherein the material contains photosensitive layer and a non-photosensitive layer such as protective layer or intermediate layer; and columns 13-14, phenol compound (II-16), (II-17), column 17-18, compounds (II-30), (II-31) having formula within the scope of the scope of compound (2a) of the claimed invention. Yoshioka et al fail to disclose the compound of formula (1) of the claimed invention, but the compound has been known in Murray as contrast enhancing agent for a photothermographic material. See Murray in column 4, lines 9-26. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the compound taught in Murray et al to improve the image contrast of the material of Yoshioka and thereby provide a material as claimed. The limitations in claims 10-17

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is related to the process for forming the organic silver salt, and fail to differentiate the claimed material from that of the applied prior art of record.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al (US Patent No. 6,586,170). Yamada et al disclose a photothermographic material substantially as claimed. See the material in the abstract wherein the material contains an organic silver salt, a reducing agent, a photosensitive silver halide, a substituted alkene derivative and a hydrazine compound. See the alkene derivative in column 2-3, compounds of formula (1) to (14), and the description of the substituent associated therewith in columns 4-5 and the exemplified compounds in columns 5-12; the reducing agent in column 62, compound (R-I), and the exemplified compounds in Table 3 in columns 63-64. The alkene compound contains a functional group same or similar to that of the compound of formula (1), see for instance the compound in column 9, compound 38 that contains an aryl group, an -OH group, -CN group and -COOC₈H₁₇. Yamada et al fail to exemplify the use of the alkene derivative and the compound (R-I), but suggested thereof. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the alkene compound and reducing agent suggested therein with a reasonable expectation of achieving a material with less black pepper, and thereby provide a material as claimed. . The limitations in claims 10-17 is related to the process for forming the organic silver salt, and fail to differentiate the claimed material from that of the applied prior art of record.

Response to Arguments

4. Applicant's arguments filed April 25, 2005 have been fully considered but they are not persuasive. The applicants argument is based on the superiority of the photothermographic

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material containing the combination of the formula (1) and formula (2a). The references such as Yoshioka, Murray and Yamada do not suggest such superiority demonstrated in Declaration submitted on April 25, 2005.

It is the Examiner's position that the invention as claimed contains a reducing agent and nucleating agents known in the art such as disclosed in Yamada et al, Yoshioka and Murray. It would have been obvious to the worker of ordinary skill in the art to use the phenol compound as claimed as reducing agent for silver ion in combination with known nucleating agent to improve the image contrast thereof. The Declaration submitted on April 25, 2005 fails to overcome the prima facie of obviousness rejection. The results shown in the Declaration were not prepared accordingly to the samples disclosed in the applied prior art of record, but accordingly to the samples disclosed in the applicants' disclosure. Therefore, the applicants fails to compare the claimed material to the material of the applied prior art of record. Yamada discloses the combination of applicants' nucleating agent and a number of reducing agent including that of the formula (2a) claimed in the present claimed invention. According to Yamada et al, all reducing agents disclosed therein are equivalent in property as reducing agent silver ion. The applicants fails to show that the reducing agent disclosed therein are not provide a photothermographic material with equal quality when combine with the nucleating agent. Likewise, the results presented in the Declaration are not related to the material of Yoshioka et al that contains a combination of bisphenol reducing agent and a phenol as development accelerator. It fails to show that nucleating taught in Murray would provide the material disclosed in Yoshioka et al in such a way that would not have expected by the worker of ordinary such as Dmin, Dmax-Dim disclosed in Tables 1-2 in Yoshioka et al. Also, it fails to show that the compound of formula

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(2a) would improve the Dmax, S, gamma and black peppers discloses in Table of Yamada a significant improvement that would have been found unexpected by the worker of ordinary skill in the art. Second, the unexpected results cannot determined in view of the prior art since it is irrelevant to the property shown in the applied prior art such as Dmin, Dmax-Dim or Dmax, S, gamma and black peppers. Accordingly, the invention as claimed is still prima facie obvious over the applied prior art of record.

5. Claims 18-36 allowed over the applied prior art of record since the applied prior art fail to teach or fairly suggest the polymer having at least one repeated unit of aliphatic monomer having a halogen radical releasing group of the claimed invention. Yamada et al in column 73 lines 25-65 discloses an organic polyhalogenated compound, but not in polymer form.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea *tcu*
June 28, 2005

Thorl Chea
Thorl Chea
Primary Examiner
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